

REMARKS

In the Final Office Action, claims 4, 11, 19, 21, 22, 26-38 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Also, claims 4, 11 and 40 have been rejected under 35 U.S.C. 102(e) as being anticipated by 6,744,370 to Sleichter, III et al (hereinafter Sleichter) and claims 4, 11, 19, 21, 22, 26, 29, 31, 36-46 and 51-53 have been rejected under 35 U.S.C. 102(b) as being anticipated by 5,746,602 (hereinafter Kikinis). In addition, claims 27, 28, 30, 32, 47 and 57 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis.

In response, Applicant has filed this Request for Continued Examination (RCE). Enclosed herewith is an RCE transmittal, an RCE fee worksheet, a power of Attorney and a credit card payment form.

Also in response, claims 4, 11, 26, 30, 31, 38-40, 43, 44, 48, 50-53 and 57 have been amended.

In addition, new claims 58 - 85 have been added, and claims 22, 27-29, 32, 36, 37, 45, 46, 49 and 54-56 are hereby cancelled without prejudice or disclaimer of subject matter.

Support for the amendments to claims 4, 51, 53 and the new independent claims 58, 80 and 82-85 can be found, *inter alia*, in the specification, (note: paragraphs reference continuation publication 2008/0274769 published Nov. 6, 2008) paragraphs [0019], [0024], [0027], [0028], [0049], [0050], [0063], [0067], [0086] and [0110] and in Figs. 3-12, in the originally filed claims, and on page 2 of provisional application 60/146,782 filed July 31, '99.

Support for the amendments to dependent claim 31 can be found, *inter alia*, in the specification, paragraph [0050] of continuation publication 2008/0274769 published Nov. 6, 2008, and in the originally filed claims.

Support for the addition of dependent claims 59, 61-63 can be found, *inter alia*, in the

specification, paragraphs [0029] and [0049] of continuation publication 2008/0274769 published Nov. 6, 2008, Drawing #1 of provisional application 60/146,782 filed July 31, '99, and in the originally filed claims.

Support for the addition of dependent claim 60 can be found, *inter alia*, in Figs. 3 and 4.

Support for the addition of dependent claims 64-68 can be found, *inter alia*, in the specification, paragraphs [0027] and [0110] of continuation publication 2008/0274769 published Nov. 6, 2008, and in the originally filed claims.

Support for the addition of dependent claims 69-72 can be found, *inter alia*, in the specification, paragraph [0049] of continuation publication 2008/0274769 published Nov. 6, 2008, and in the originally filed claims.

Support for the addition of dependent claim 73 can be found, *inter alia*, in the specification, paragraph [0019] of continuation publication 2008/0274769 published Nov. 6, 2008, and in the originally filed claims.

Support for the addition of dependent claim 74 can be found, *inter alia*, on page 2 of provisional application 60/146,782 filed July 31, '99.

Support for the addition of dependent claims 75-76 can be found, *inter alia*, in the specification, paragraphs [0020] and [0066] of continuation publication 2008/0274769 published Nov. 6, 2008, and in the originally filed claims.

Support for the addition of dependent claim 77 can be found, *inter alia*, on Page 3, line 12 of provisional application 60/149,804 filed Aug. 18, '99.

Support for the addition of dependent claim 78 can be found, *inter alia*, in the specification, paragraphs [0023], [0056] [0058] and [0110] of continuation publication 2008/0274769 published Nov. 6, 2008, on Page 3, lines 14-15 of provisional application 60/149,804 filed Aug. 18, '99, and in the originally filed claims.

Support for the addition of dependent claim 81 can be found, *inter alia*, in the specification, paragraphs [0067] of continuation publication 2008/0274769 published Nov. 6, 2008, and in the originally filed claims.

Claims 4, 11, 19, 26, 30, 31, 38-44, 47, 48, 50-53 and 57-85 stand pending.

Rejections under 35 U.S.C. § 112, Second Paragraph

In the Final Office Action, claims 4, 11, 19, 21, 22, 26-38 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant respectfully asserts that with the amendments to claims 4, 11, 26, 30, 31 and 38 and the cancellation of claims 22, 27-29, 32, 36 and 37, the rejections under 35 U.S.C. § 112, second paragraph have been overcome and should be withdrawn.

Rejections under 35 U.S.C. § 102 and § 103

In the Office Action, claims 4, 11 and 40 have been rejected under 35 U.S.C. 102(e) as being anticipated by Sleichter, claims 4, 11, 19, 21, 22, 26, 29, 31, 36-46 and 51-53 have been rejected under 35 U.S.C. 102(b) as being anticipated by Kikinis and claims 27, 28, 30, 32, 47 and 57 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Kikinis.

As amended, independent claim 4 now recites a handheld, powered interactive physical display apparatus comprising: at least one electrical energy source in the handheld apparatus; multiple input transducers in the handheld apparatus, which receives at least one input from a local user and produces at least an input signal; one or more wireless transceivers in the handheld apparatus; at least one electrically powered tactile stimuli output component in the handheld apparatus for outputting stimuli perceptible by touch; at least one storage medium in the handheld apparatus having at least one program stored therein, and at least one processor in the handheld apparatus operatively connected with said at least one energy source, at least one of said multiple input transducers, said one or more wireless transceivers, said at least one tactile stimuli output component, and said at least one storage medium; and said at least one processor interpreting at least said one local input signal according to said at least one program and determining at least one output signal; and wherein said apparatus outputs at least tactile stimuli to said local user, at least in response to said user's input in a stand-alone mode without input

from an external processor.

Applicant respectfully asserts that the cited references (i.e. Sleichter, and Kikinis) taken alone or a proper combination thereof, do not teach or suggest the recitation of independent claim 4. Specifically, neither references discloses “a handheld... apparatus comprising: ... multiple input transducers in the handheld apparatus, which receives at least one input from a local user and produces at least an input signal; ... at least one electrically powered tactile stimuli output component in the handheld apparatus for outputting stimuli perceptible by touch; ... and wherein said apparatus outputs at least tactile stimuli to said local user, at least in response to said user’s input in a stand-alone mode without input from an external processor.”

Instead, and quite unlike the present invention as recited in independent claim 4, Sleichter discloses “a vibro-tactile cutaneous alert stimulation and massaging system for equipment such as a vehicle includes a pad; a heater element, and motorized vibrators in respective regions of the pad; a plurality of vibratory transducers for location relative to plural zones of the seat, each transducer being responsive to a transducer power signal; a microprocessor controller having program and variable memory and an input and output interface; an array of input elements connected to the input interface for signaling the microprocessor in response to operator input, the signaling including an intensity control value, a plurality of mode signals, and a plurality of region signals relating transducers to be enabled; and a driver circuit responsive to the output interface for producing the power signal separately for each of the transducers” (see Sleichter abstract), and nowhere teaches or suggests a handheld apparatus outputting a tactile stimuli to a local user in response to the user’s input in a stand-alone mode without input from an external processor.

The teaching that is lacking in Sleichter is not provided by the other cited reference, Kikinas. Instead, Kikinas discloses “an interactive system for teaching, entertaining, and habituating a child utilizes an interactive entity such as a doll, the doll having a microphone, a speaker, and control circuitry adapted for driving the speaker and microphone and a bidirectional communication link to a personal computer” (see Kikinas abstract), and nowhere teaches or suggests a handheld apparatus outputting a tactile stimuli to a local user in response to the user’s input in a stand-alone mode without input from an external processor.

Nor would it be obvious to modify Kikinas to arrive at the present invention as recited in independent claim 4 because the Kikinas reference does not contemplate, or indicate any

advantages associated with a handheld device capable of outputting a tactile stimuli to a local user in response to the user's input in a stand-alone mode without input from an external processor.

For the reasons cited above, Applicant respectfully asserts that independent claim 4, as amended, is now patentable in light of the cited references (Sleichter and Kikinas).

The arguments provided above are also applicable to independent claims 51, 53, 58, 80 and 82-85.

For example, independent claim 51, as amended, now recites, *inter alia*, a handheld ... apparatus... configured to sense at least one vital sign input of a local user and produce a vital sign input signal; at least one physical sensation output component, capable of outputting one or more types of stimuli ... wherein said apparatus outputs at least one of said stimuli to a portion of said local user's body in response to said vital sign input signal in a stand-alone mode without input from an external processor.

Applicants respectfully assert that neither of the cited references (i.e. Sleichter and Kikinas) taken alone or a proper combination thereof, teach or suggest a handheld apparatus outputting a stimuli from a physical sensation output component to a portion of a local user's body in response to the vital sign input signal in a stand-alone mode without input from an external processor.

For the reasons cited above, Applicant respectfully asserts that independent claim 51, as amended, is now patentable in light of the cited references (Sleichter and Kikinas).

Also, independent claim 53, as amended, now recites, *inter alia*, a handheld ... apparatus, comprising: ... at least one brain wave input transducer that senses brain waves of a local user and produces at least one brain wave input signal; at least one visual display in the handheld apparatus; ... at least one processor interprets at least said brain wave input signal and determines and sends an output signal ... to at least said visual display in a stand-alone mode without connection to an external processor.

Applicants respectfully assert that neither of the cited references (i.e. Sleichter, and Kikinis) taken alone or a proper combination thereof, teach or suggest a handheld apparatus having a processor that interprets a brain wave input signal and determines and sends an output signal to a visual display in a stand-alone mode without connection to an external processor.

For the reasons cited above, Applicant respectfully asserts that independent claim 53, as

amended, is now patentable in light of the cited references (Sleichter and Kikinas).

New independent claim 58 recites, a handheld device comprising: a user input transducer; a tactile output transducer for outputting stimuli perceptible by touch; a processor in the handheld device processing an input from the user input transducer and sending an output to the tactile output transducer in a stand-alone mode without connection to another processor; and a transmitter for connecting the device to another processor.

Applicants respectfully assert that neither of the cited references (i.e. Sleichter, and Kikinis) taken alone or a proper combination thereof, teach or suggest a handheld device comprising a user input transducer; a tactile output transducer for outputting stimuli perceptible by touch; a processor in the handheld device processing an input from the user input transducer and sending an output to the tactile output transducer in a stand-alone mode without connection to another processor.

For the reasons cited above, Applicant respectfully asserts that new independent claim 58 is now patentable in light of the cited references (Sleichter and Kikinas).

New independent claim 80 recites, a handheld device comprising: a handheld frame; a user input transducer attached to the handheld frame; a tactile output transducer attached to the handheld frame for outputting stimuli perceptible by touch; a processor in the handheld device processing an input from the user input transducer and sending an output to the tactile output transducer in a stand-alone mode without connection to another processor; and a receiver attached to the handheld frame for connecting the handheld device to an external device.

Applicants respectfully that neither of the cited references (i.e. Sleichter, and Kikinis) taken alone or a proper combination thereof, teach or suggest a handheld device comprising: a handheld frame; a user input transducer attached to the handheld frame; a tactile output transducer attached to the handheld frame for outputting stimuli perceptible by touch; a processor in the handheld device processing an input from the user input transducer and sending an output to the tactile output transducer in a stand-alone mode without connection to an external device.

For the reasons cited above, Applicant respectfully asserts that new independent claim 80 is now patentable in light of the cited references (Sleichter and Kikinas).

New independent claim 82 recites, A handheld device comprising: a means for producing a user input signal; a means for producing a tactile output stimuli perceptible by touch; a

processing means in the handheld device for processing an input from the user input signal and sending an output to the tactile output means in a stand-alone mode without connection to another processing means; and a transmitting means in the handheld device for connecting the handheld device to said another processing means.

Applicants respectfully that neither of the cited references (i.e. Sleichter, and Kikinis) taken alone or a proper combination thereof, teach or suggest a handheld device comprising: a means for producing a user input signal; a means for producing a tactile output stimuli perceptible by touch; a processing means in the handheld device for processing an input from the user input signal and sending an output to the tactile output means in a stand-alone mode without connection to another processing means.

For the reasons cited above, Applicant respectfully asserts that new independent claim 82 is now patentable in light of the cited references (Sleichter and Kikinas).

New independent claim 83 recites, A wireless phone comprising: means for sending and receiving calls over a wireless network; a user input transducer; a tactile output transducer for outputting stimuli perceptible by touch; and a processor in the wireless phone processing an input from the user input transducer and sending an output to the tactile output transducer in a stand-alone mode without input from said wireless network.

Applicants respectfully assert that neither of the cited references (i.e. Sleichter, and Kikinis) taken alone or a proper combination thereof, teach or suggest a wireless phone comprising: means for sending and receiving calls over a wireless network; a user input transducer; a tactile output transducer for outputting stimuli perceptible by touch; and a processor in the wireless phone processing an input from the user input transducer and sending an output to the tactile output transducer in a stand-alone mode without input from said wireless network.

For the reasons cited above, Applicant respectfully asserts that new independent claim 83 is now patentable in light of the cited references (Sleichter and Kikinas).

New independent claim 84 recites, a handheld device comprising: a user input transducer in the handheld device actuable to produce a user input signal; a processor in the handheld device processing the user input signal and generating an output signal in a stand-alone mode without connection to an external processor; and an output transducer responsive to the output signal to output stimuli perceptible by touch; and a transmitter for connecting the device to an external processor.

Applicants respectfully assert that neither of the cited references (i.e. Sleichter, and Kikinis) taken alone or a proper combination thereof, teach or suggest a handheld device comprising: a user input transducer in the handheld device actuable to produce a user input signal; a processor in the handheld device processing the user input signal and generating an output signal in a stand-alone mode without connection to an external processor; and an output transducer responsive to the output signal to output stimuli perceptible by touch.

For the reasons cited above, Applicant respectfully asserts that new independent claim 84 is now patentable in light of the cited references (Sleichter and Kikinas).

New independent claim 85 recites, a handheld device comprising: a first transducer in the handheld device actuable to produce a first signal; a processor in the handheld device processing the first signal and generating a second signal in a stand-alone mode without connection to an external processor; and a second transducer responsive to the second signal to output stimuli perceptible by touch; and a transmitter for connecting the device to an external processor.

Applicants respectfully assert that neither of the cited references (i.e. Sleichter, and Kikinis) taken alone or a proper combination thereof, teach or suggest a handheld device comprising: a first transducer in the handheld device actuable to produce a first signal; a processor in the handheld device processing the first signal and generating a second signal in a stand-alone mode without connection to an external processor; and a second transducer responsive to the second signal to output stimuli perceptible by touch.

For the reasons cited above, Applicant respectfully asserts that new independent claim 85 is now patentable in light of the cited references (Sleichter and Kikinas).

Accordingly, Applicant respectfully contends that independent claims 4, 51, 53, 58, 80 and 82-85 are not anticipated by Sleichter or Kikinas and are nonobvious in light of Kikinas. Further, since claims 11, 19, 26, 30, 31, 38-44, 47, 48, 50, 52, 57, 59-79, and 81 depend either directly or indirectly from independent claim 4, 51, 58 or 80, they are likewise allowable. For the reasons set forth above, Applicant believes that the basis for rejecting claims 4, 11, 19, 26, 30, 31, 38-44, 47, 48, 50-53 and 57-85 under 35 U.S.C. § 102 and 35 U.S.C. § 103 has been overcome and the rejections should be withdrawn.

In conclusion, Applicant respectfully asserts that claims 4, 11, 19, 26, 30, 31, 38-44, 47, 48, 50-53 and 57-85 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully

requested. The Examiner is requested to call the undersigned at 760-815-6946 for any reason that would advance the instant application to issue.

July 7, 2011
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Respectfully submitted,

A handwritten signature in black ink, appearing to be "Matthew K. Hillman", written over a horizontal line.

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